

PARIISKI~~X~~, N. M.

Pariiskii, N. M. and Kazanskii, I. A. "Determination of Gravity in 6 Points along Sternberg's Traverse in the Region of the Moscow Gravitational Anomaly." *Astronom. Zhurnal*, Leningrad, vol. 1, No. 3/4, 1932, pp. 238-268.

PARIISKII, N. M.

Pariiskii, N. M. "Gravimetry in the Soviet Union During 20 Years." *Izvestiia*,
Moscow, v 1. 2, 1937, pp. 233-237.

1. PARIYENY, N.N.

2. USSR (600)

"New attempts to explain the origin of the solar system", Astron. Zhur., 10, No.1, 1939.
Storberg Astronomical Institute. (submitted 15 Oct 1939)

9. Report G-1513, 28 Oct 1951

1. PARIYSKIY, N.N. (Secretary of the commission)

2. USSR (600)

"Chronicle: Information bulletin No 1 (commission on preparation for the total solar eclipse) 21 Sept 1941,"
Astron. Zhur., 16, No 4, 1959.

9. [REDACTED] Report U-1518, 23 Oct 1951

PARIISKII, N. N.

Pariiskii, N. N. "A New Static Gravimeter Constructed by Lindblad and Paley, 1st."
Geolezist, Moscow, No. 6, 1939, pp. 51-54.

ПРИЙСКИЙ, Н.Н.
11.2

Propagation of waves

1953 ON THE ORIGIN OF COSMIC RAYS AND ON
THE MEAN LIFETIME OF ATOMS... D. Fessen-
kova & N. Parikhov. (Comptes Rendus
(Doklady) de l'Ac. des Sci. de l'URSS,
20th May 1953, Vol. 30, No. 5, pp. 184-186;
in English.)

It is shown that the Galaxy is nearly transparent
to cosmic radiation and that this has its origin in the
Metagalaxy. The mean lifetime of atoms is found
to be 1.6×10^9 years. "The recognition of the
spontaneous annihilation of matter leads directly
to many consequences of astronomical importance."

f c

87

Origin of cosmic rays and duration of existence of atoms. V.P.
Fesenkov and M. N. Parikh (Compt. rend. Acad. Sci. U.R.S. G.
1943, 20, 191-194). From the intensity of cosmic rays it is calculated
that the half-life of an "average atom" is $\sim 1.6 \times 10^{17}$ years.

J. J. B.

U.S.S.R. METALLURGICAL LITERATURE CLASSIFICATION

Year	Month	Day	Volume	Page	Author	Title	Abstract
1943	10	19	1	191	Fesenkov, M.N.; Parikh, M.N.	On the origin of cosmic rays and the duration of existence of atoms	

CA 3

Origin of cosmic rays and the mean life-period of atoms. V. O. Pavlov and N. N. Pavlov. *Astron. J. of the Soviet Union* 20, No. 1, 1-8 in Russian and 9-12 in English (1943).--From the intensity of cosmic radiation and its uniformity from all directions, the authors conclude that the cosmic rays originate in the metagalaxy. On the basis of the kinds of cosmic radiation reaching the surface of the earth at various latitudes, it is found that the matter emitting the cosmic radiation consists of H, 48.2%; He, 7.4%. The mean life of an av. atom is 1.6×10^{11} yrs.; of Si atoms, 1.5×10^{10} yrs. Also in *Compt. rend. acad. Sci. U. S. S. R.* 39, 184-6. F. H. Rathmann

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SECTION	SUBSECTION	UNIT	ALLOCATION	CLASSIFICATION
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PARIYSKIY, N.N.

Earth tides and the internal constitution of the earth. Izv.
AN SSSR. Ser.geofiz. no.2:193-215 F '63. (MIRA 16:3)

1. Institut fiziki Zemli AN SSSR.
(Earth—Internal structure) (Tides)

PARIYSKIY, N.N.

Detection of the diurnal nutation of the earth. Astron. zhur.
40 no.3:556-560 My-Je '63. (MIRA 16:6)

1. Institut fiziki Zemli AN SSSR.
(Nutation)

PARITYSHIN, V. I.

"Acceleration of activity in the Central District of the Republic of Dagestan at 1981," Dagestan, 1981, 1981, 1981.

FARIYSKIY, V. I.

May 1941

USSR/Corona, Solar
Solar Phenomena

"Some of the Results Obtained at the Sternberg State Astronomical Institute in
Studying Solar Corona and Chromosphere," L. I. Iugoslavskaya, V. I. Iarionov,
I. S. Shklovskiy, 2-11

"Izv Ak Nauk Ser Fiz" Vol X, No 5/6

Table showing the concentration of ions Fe and H in the corona. Table showing
the wave-lengths and spectral terms of iron ions. Schema of the solar corona of
21 Sep 1941. Graph showing the deviation from the normal of the coronal radiation
with position on the solar surface. Many sketches of the chromosphere for various
years. Two diagrams showing various isographs around the sun for intensity of rad-
iation for various elements (Fe, H, etc.).

JA 12T76

1. PARSONS, W. E.

2. 1002 (500)

"An application of the Bayesian Theory of Errors in Contemporaneous and
Pendulum Observations."
Trudy seismologii i aerologii, No. 121, 1964 (111-124).

9. Meteorologiya i Gidrologiya, No. 1, 1964.
Report 1-2541. 1964, 52

USSR/Geophysics - Personalities
Meteors

Oct 49

"The Scientific Activity of Academician V. G.
Fesenkov. (60th Birthday)," N. N. Pariyskiy, 5 pp

"Priroda" No 10, p 81

In 1941, Fesenkov conducted observation of zodiacal
light by means of a Safir Boye chamber near Alma-
Ata; he was the first to study radiation near the
sun at distances up to 8 solar radii in abs units.
Most of Fesenkov's researches on zodiacal light
were summarized in his work, "Meteoric Matter in

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interplanetary space," published in 1947. He is
still studying this phenomenon on Alma-Ata. He
heads the Meteorite Committee, Acad Sci USSR. He
is perhaps Russia's outstanding specialist in photo-
metric methods.

PARIYSKIY, N. N.

212778

PARIISKIY, N. N.

Gravity

Influence of microseisms on determining the force of gravity with an oscillating pendulum, Trudy Geof. inst. AN SSSR No. 12(139), 1950

9. Monthly List of Russian Accessions, Library of Congress, July 195²₈, Uncl.

PARIISKIY, N. N.

Attractions

Vertical component of attraction of a hyperbolic dome. Trudy Geof. inst. AN SSSR
no. 12, 1950

9. Monthly List of Russian Accessions, Library of Congress, July 195²~~7~~, Uncl.

PARIISKIY, N. N.

Microseisms

Influence of microseisms on determining the force of gravity with an oscillating pendulum, Trudy Geof. inst. AN SSSR No. 12(139), 1950

9. Monthly List of Russian Accessions, Library of Congress, July 195²7, Uncl.

PARITSKIY, I. I.

"Influence of Microseisms on the Determination of Gravitational Force by the 'Oscillating Pendulum' Method," the first article in Works of the Geophysical Institute, No 12, 139 - a collection of nine geophysical articles, Moscow, 1951; 30 pages.

Considers the dependence of the period of oscillation of pendulum on the vertical and horizontal microseisms. The author establishes that essential variations among repeated determinations of the force of gravity in one point are not connected with microseismic movements even in the case of so-called "storm microseisms."

U-1500, 4 Oct 61

PARIISKII, N. N.: BUGOBLAVENIYA, Ya. Ya.

Eclipses, Solar - 1952

Observations of the total solar eclipse of February 25, 1952. Intern. Bull. No. 125, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

PARIYSKIY, N. N. and K. I. PETROVA

"Spectrophotometry of Coronal and Chromospheric Lines During the Eclipse of February 25, 1952"

(Total Eclipse of the Sun, February 25, 1952 and June 3, 1954, Transactions of the Expedition to Observe Solar Eclipses) Moscow, Izd-vo AN SSSR, 1952. 357 p.

PARIYSKIY, N.

ECLIPSES, SOLAR - 1952.

Astronomers on an expedition. Vokrug sveta, No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1952. ~~1953~~, Uncl.

PARIYSKIY, N. N.

Cosmogony

New stage of cosmological science. *Iskuzhen'nyi*, no. 9, 1982.

Monthly List of Russian Accessions, Library of Congress, December 1982. 110.123.119.

USSR/Astronomy - Solar Eclipse

May/Jun 52

"Observations of the Total Solar Eclipse on
5 February 1952," V. G. Fesenkov, N. N. Parytsky

"Astron Zhur" Vol XXIX, No 3, pp 369-373

A year before the eclipse a committee was chosen under guidance of V. G. Fesenkov to organize for future observations. Adequate sites were chosen in Turkmenia, Uzbek and Kazakhstan; meteorological data were studied. Principal instruments consisted of slit-spectrograph with Schmidt camera, and double

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camera "Industar 17" with filters for infrared and ultraviolet. An airplane lifted the scientific staff for observations over the clouds. Good corona spectra were obtained by Parytsky.

PARYTSKIY, N. N.

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PARIYSKIY, N.N.

Annual changes in the velocity of the earth's rotation. Trudy
(MIRA 7:3)
Geog.inst. no.19:53-102 '53. (Earth--Rotation)

PARIYSKIY, N.N.; BERLYAND, O.S.

Effect of seasonal changes in atmospheric circulation on the
velocity of the earth's rotation. Trudy Geof.inst. no.19:103-122
'53. (MLRA 7:3)

(Earth--Rotation) (Atmosphere)

PARIYSKIY, N.N.

Effect of free nutation of the earth on the angular velocity
of its rotation. Trudy Geog.inst. no.19:123-127 '53. (MLRA 7:3)
(Earth--Rotation) (Nutation)

PARIYSKIY, N.N.

[Irregularity of the earth's rotation] Neravnomernost' vrashche-
nii zemli. Moskva, Izd-vo Akademii nauk SSSR, 1954 47 p.
(Earth--Rotation) (MLRA 8:11)

KUKARKIN, B.V., doktor fiziko-matematicheskikh nauk, redaktor; PA-
RIYSKIY, N.N., kandidat fiziko-matematicheskikh nauk, redaktor;
~~KARANOV, V.I.~~, doktor fiziko-matematicheskikh nauk, redaktor;
BELOUSOV, V.V., redaktor; LEVIN, B.Yu., kandidat fiziko-ma-
tematicheskikh nauk, redaktor. MASEVICH, A.G., kandidat fiziko-
matematicheskikh nauk, redaktor; SAFRONOV, V.S., kandidat fi-
ziko-matematicheskikh nauk, redaktor.

[Problems in cosmogony] Voprosy kosmogonii. Moskva, Izd-vo
Akademii nauk SSSR. Vol 2. 1954. 363 p. (MLRA 7:8)

1. Chlen-korrespondent AN SSSR (for Belousov) 2. Akademiya
nauk SSSR.
(Cosmogony)

PARIYSKIY, N. N.

6518. Pariyskiy, N. N. Neravnomernost' Vrashch-Eniya Zemli. M.,
Izd-vo Adad. Nauk SSSR, 1954. 485. 19 sm. (Adad. Nauk SSSR). B.
ts. - Bibliogr. V Kontse Tekstov (32 Nazv.) - Tekst Paral. Na Rvs.
I angl. Yaz.- (55-1742) P. 25 & (016.3)

SO: Knizhnaya Letopis' No. 6, 1955

PARIYSKIY, N. N.

Computation of Trajectory of Capture in a Plane Problem of Three Bodies of Equal Mass
Vopr. kosmogonii, 3, 1954, pp 33-62

The problem constructed by O. Yu. Schmidt, (DAN, 58, 215, 1947) is analyzed in detail. Numerical integration is applied and a table of coordinates and velocities covering a period of 22,000 years is compiled. The abstracter, G. A. Merman, remarks that the computations by the author for the most important section of close double approach were repeated by V. F. Proskurin (RZhAstr-2118, (1954) using another method which confirmed the author's results. (RZhAstr, No 5, 1955)

SO: Sum. No. 639, 2 Sep 55

PARIYSKIY, N. N.

Determination of the Orientation of the Slit of A Horizontal Spectrograph
in Solar Observations
Sootshch. Gos. astronom. in-ta im. F. K. Shternberga, No 96, pp 2-7, 1955.

A geometrical formula is derived for the position of the solar disk on the spectrograph's slit. If the positional angles along the solar limb on the slit run clockwise from the northern intersection point of the declination circle with the limb, then in the northern hemisphere the angular distance of this point from the lower limb point (inter-section of the latter with the vertical) is determined by $\cos B = \sin \phi / \cos \delta$, here ϕ is the latitude of the observation point and δ the declination of the sun. (RZhAstr, No 11, 1955)

SO: Sum No 812, 6 Feb 1956

PARIYSKIY, N.N.

Effect of atmospheric circulation on the movement of the earth's
pole. Astron. tsir. no. 152:15-17 S '54. (MLRA 8:3)
(Earth--Rotation) (Atmosphere)

PARIYSKIY, N.N.

~~quantum factor in solar motion. Vop.kosm.4:5-33 '55. (MIRA 9:4)~~

Quantity factor in solar motion. Vop.kosm.4:5-33 '55. (MIRA 9:4)
(Sun--Rotation)

60-55-26-12/16

AUTHOR: Pariyskiy, N. N.

TITLE: Irregularity in the Earth's Rotation (Neravnomernost' vrashcheniya zemli)

PERIODICAL: Trudy Geofizicheskogo instituta Akademii nauk SSSR, 1955, Nr 26, pp 131-152 (USSR)

ABSTRACT: The author distinguishes three types of irregularity in the Earth's rotation: secular, irregular, and periodic variation in the Earth's rotation. He briefly reviews literature available on the subject and presents the results of his own investigations. During the last 2,500 years besides secular retardation in the Earth's rotation due to tidal friction, there has been been a decreased mean secular acceleration corresponding to the relative change in angular velocity $\frac{4'\omega}{\omega} \approx +1.4 \cdot 10^{-8}$. This acceleration may be due to an accumulation of changes in the moment of the Earth's inertia due to a redistribution of mass in the Earth itself or, which is less probable, to an accretion (64 m. in 2,000 years) in the ice cover of the Antarctic landmass and a corresponding decrease (2.5 m.) in the water level of the oceans. Estimates of tidal friction in the seas made by Jeffreys

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60-55-26-12/16

Irregularity in the Earth's Rotation

are incomplete and those by Heiskanen are 3 times too low. Secular tidal retardation may also be affected by the delay in the tidal phase of the solid portion of the Earth. The irregular variations in angular velocity in the Earth's rotation are shown to be related to processes taking place in the Earth's interior. The author discusses Brouwer's work on the computation of "random" variations in the moment of the Earth's inertia in determining secular tidal retardation and provides a brief review of his and articles co-authored with O. S. Berlyand on the subject of periodic yearly variations in angular velocity of the Earth's rotation. There are 1 table and 14 references of which 6 are Soviet, 5 English, 1 Finnish, 1 German, and 1 Dutch.

AVAILABLE: Library of Congress

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PARIYSKIY, N.N.

Remarks on the critical parallels of M.V. Stovae and on the influence of solar activity on irregular variations in the velocity of the earth's rotation. Astron. zhur. 33 no.4:625-630 J1 - Ag '56. (MIRA 9:11)

1. Geofizicheskiy institut Akademii nauk SSSR.
(Earth--Rotation)

PARIYSKIY, N. N. and GINDILIS, L. M.

"Investigation of the Luminiscence of the Green Band 5577 in the Night Sky
an the Counter-Glow Region"

report presented at the Intl. Congress on Interplanetary Matter, Jena, GDR,
7-12 Oct. 1957.

Geokhimiya, 1958, No. 1, pp. 96 (author Krinov, Ye. L.)

PARIYSKIY, N.N.

Nebular spectrograph with high light-gathering power at the
Kuchino Astronomical Observatory. Soob.GAISH no.101/102:3-32.
'57. (MIRA 12:1)
(Spectrograph)

PARIYSKIY, N.N.

Observation of the total solar eclipse of November 21, 1941,
on nebular spectrograph. Soob.GAISH no.101/102:33-54 '57.
(MIRA 12:1)
(Eclipses, Solar--1941)

KARYAGINA, Z.V.; PARIYSKIY, N.N.

Spectrum of Arend-Roland's comet. Astron. tsir. no.181:2-4 Je '57.
(MIRA 13:3)

1.Astrofizicheskiy institut AN KazSSR i Gosudarstvennyy astronomicheskiy
institut im. P.K. Shternberga.
(Comets--Spectra)

Pariyskiy, N.N.

KARYAGINA, Z.V.; PARIYSKIY, N.N.

Spectroscopic observations of low-latitude aurora borealis of
September 29-30, 1957. Astron. tsir. no.186:20-21 N '57.
(MIRA 11:4)

1. Astrofizicheskiy institut AN KazSSR (for Karyagina) 2. Gosudarstven-
ny astronomicheskiy institut im. Shternberga (for Pariyskiy).
(Auroras)

PARTYSKIY, N. N. and IKHSANOVA, V. N.

"Results of Observations of Solar Radioemissions by Means of the Large Pulkovo Radiotelescope at centimeter Wavelengths,"

paper submitted for the Symposium on Radio Astronomy, 30 Jul -6 Aug 58., Paris.

PARIYSKIY, N.N., kand. fiz.-mat. nauk, otv. red.; KONONOVICH, E.V., red.;
KUZ'MIN, A.D., kand. tekhn. nauk, red.; MOGILEVSKIY, E.I., kand.
fiz.-mat. nauk, red.; MUSTEL', I.R., red.; YEGOROVA, N.B., red. 1zd-va,
KASHINA, P.S., tekhn. red.

[Total solar eclipses of February 25, 1952 and June 30, 1954;
proceedings of the expedition] Polnye solnechnye zatmenia, 25 fevralia
g. i 30 iyunia 1954 g.; trudy ekspeditsii. Moskva, 1958. 357 p.
(MIRA 11:12)

1. Akademiya nauk SSSR. Ekspeditsiya po nablyudeniyu polnykh
solnechnykh zatmeniy, 1952 i 1954. 2. Chlen-korrespondent AN SSSR (for
Mustel').

(Eclipses, Solar)

MOLCHANOV, A.P.; CHEN PAN-YUN [Ch'eng Pang-yung],; PARIYSKIY, N.N.

Annular solar eclipse: joint expedition of Soviet and Chinese
scientists. Pt. 1: Radioastronomical observations. Pt. 2: Optical
observations. Vest. AN SSSR 28 no. 9:66-71 S '58. (MIRA 11:10)
(Eclipses, Solar--1958)

AUTHOR: Pariyskiy, N. N.

SOV/30-58-2-15/51

TITLE: Optical Observations (Opticheskiye nablyudeniya)

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, ⁵Nr 9, pp. 70-71 (USSR)

ABSTRACT: The Chinese Astronomers Tay Ven-say, Van Shou-guan' from the Astronomicheskaya observatoriya Tsikavey pod Shankhayem (Astronomical Observatory Tsikavey near Shanghai), representatives of the leader of the Chinese group of the expedition Chzan-Yuy-chze, director of the Dzy-Dzyn'-shan'observatory and Du-Sin' ^{khua} Professor of the Peking University, took part in the observations. The optical observations had the following purposes: the investigation of the modification of the ozone layer in the atmosphere of the earth during the eclipse of the sun (group N. N. Pariyskiy); an investigation of the laws governing the eclipse at the periphery of the disk of the sun carried out at different wave lengths by photoelectric methods (a group of Chinese astronomers of the Nanking University, with G. F. Sitnik participating); a study of the intensity variations of Fraunhofer lines from the center to the periphery of the disk of the sun, investigated by means of a diffraction spectrograph which was erected by

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Optical Observations

SOV/30-50-9-15/51

Chinese astronomers from the observatory of Mount Purple (Pur-purnaya gora). The ozone layer was investigated by means of the quartz chamber of a nephelometer of the system N. N. Pariyskiy. Also the interplanetary space, the nature of the antizodiacal light and the physical characteristics of the zodiacal light were investigated. These papers have to be regarded as a continuation and a development of the investigations carried out by V. G. Fesenkov, I. S. Astapovich, B. N. Divari, D. A. Rozhkovskiy, M. G. Karimov, V. V. Karyagina, N. N. Pariyskiy and L. M. Gindilis. The Chinese collaborators Khu Ren-tskhau and Yuy Khoy-zhen' assisted in the work with the nephelometer. Luminophores were used in the investigations, which had been produced in the Laboratoriya lyuminesentsii Fizicheskogo instituta im. P. N. Lebedeva Akademii nauk SSSR (Laboratory of Luminescence of the Physical Institute imeni P. N. Lebedev AS USSR). In Nanking and Peking lectures on the problem of antizodiacal light were held before Chinese astronomers and geophysicists.

Card 2/2

PARIYSKIY, N. N.

Tidal Tides of the Earth According to Observations in 1958 in Russia (New Statistics) by N. N. Pariyskiy, A. E. Gerasimov, A. E. Gerasimov, and L. I. Hrubovskiy (Russian)

Tidal Tides of the Earth According to the Observations in 1957 and 1958 by the Soviet Union by N. N. Pariyskiy, A. E. Gerasimov, and B. M. Pashchukhin (Russian)

Results of Observations of the Tidal Tides of the Earth by Means of a Photoelectric Tide Gauge by N. N. Pariyskiy, A. E. Gerasimov, and B. M. Pashchukhin (Russian)

Observations of the Tidal Tides of the Earth by Means of a Photoelectric Tide Gauge in Poltava, Ukraine by N. N. Pariyskiy, A. E. Gerasimov, P. Kharin, and B. M. Pashchukhin (Russian)

Tidal Variations of the Earth According to the Observations in 1958 by N. N. Pariyskiy, A. E. Gerasimov, and B. M. Pashchukhin (Russian)

Observations of Tidal Tides of the Earth by Means of a Photoelectric Tide Gauge by N. N. Pariyskiy, A. E. Gerasimov, P. Kharin, B. M. Pashchukhin, and R. N. Shchegolev (Russian)

Papers Presented at First Meeting of Permanent Commission on Earth Tides, Trieste, Italy, 6-11 July 1959, under the sponsorship of the Int'l Union of Geodesy and Geophysics (IUGG).

SOV/49-59-2-8/25

AUTHORS: Pertsev, B. P., Pariyskiy, N. N., Kramer, M. V.

TITLE: Comparison Between Various Methods of ~~Harmonic~~ Analysis of the Tidal Deformation of the Earth (Sravneniye razlichnykh metodov garmonicheskogo analiza prilivnykh deformatsiy zemli)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 2, pp 242-243 (USSR)

ABSTRACT: In order to define the accuracy of the harmonic analysis of the elastic tides of the Earth, a comparison was made of the methods described by A. T. Doodson, G. W. Lennon, R. Lecolazet and B. P. Pertsev (Refs 1-4). The theoretical tide was calculated for V_2 , taking account of the components of the Moon and Sun for every hour during 30 days, starting from midnight on January 1, 1955, for $\varphi = 45^\circ$ and $\lambda = 0^\circ$. To simplify the work, the value of:

$$G = \frac{3}{4} \frac{M}{E} \frac{ga^2 c}{C^2}$$

was taken as unity. In addition, the potential for 19, 21 and

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SOV/49-59-2-8/25

Comparison Between Various Methods of Harmonic Analysis of the Tidal Deformation of the Earth

23 hours on December 31, 1954 was included. The analysis was carried out only for M_2 , S_2 , N_2 , K_1 and O_1 , as suggested by the International Geophysical Year Committee. The results are given in the table on p 243, where the first (top) and the second (bottom) approximations are shown for every method (except Lennon's). The first column gives the difference between the observed wave amplitudes and their theoretical value $\delta_{\text{theor}} - \delta_{\text{obs}} = \Delta\delta$. In the case of the Lecolazet method, these data were calculated from the expressions at the lower half of p 242 (wave K_1 , R and δ). The first approximation given in the table for the waves of similar frequency was excluded, i.e. K_2 and T_2 from S_2 ; P_1 from K_1 ; ν_2 from N_2 . The second approximation was calculated when the disturbing waves given by Lecolazet (Ref 3, Tables VIII-XI) were excluded in addition to the previous ones. Thus, as it can be seen from the method 3 in the Table, the second approximation gives much better results, which can be further improved when the other waves

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SOV/49-59-2-8/25

Comparison Between Various Methods of Harmonic Analysis of the Tidal Deformation of the Earth

of a similar frequency (R_2 , π_1 , ϕ_1 , $\mathbb{I}_1$ and OO_1) are considered. As an example, the inclusion of these waves in the Doodson and Pertsev methods gives improved results for the waves S_2 and K_1 . There is 1 table; there are 4 references, of which 1 is Soviet, 1 French and 2 English.

ASSOCIATION: Akademiya nauk SSSR, Institut fiziki Zemli (Academy of Sciences USSR, Institute of Physics of the Earth)

SUBMITTED: August 15, 1957.

Card 3/3

3(1)

AUTHORS:

Pariyskiy, N.E., and Gindilis, L.M.

SOV/33-36-3-21/29

TITLE:

New Luminoforms of Constant Brightness for the Spectrophotometry of Weak Celestial Objects. The Energy Distribution in the Spectrum of Luminoforms

PERIODICAL: Astronomicheskiy zhurnal, 1959, Vol 36, Nr 3, pp 539-543 (USSR)

ABSTRACT:

This is a short description of the luminoforms produced in 1956 by the Laboratory of Luminescence of the Physical Institute imeni P.N. Lebedev. The β -radiation of the strontium isotope Sr^{90} is used as an activator. The mean visual brightness of the luminoforms is 0.015 apostilb (the minimal is 0.0116 apostilb). The authors report on the results of the investigation of the distribution of energy in the spectrum of the new apparatus. The determination of the distribution of energy was carried out by comparison with α Lyra on April 8-9, 1957 in the Astronomical Observatory of the Astrophysical Institute AS Kazakh SSR. The results are contained in a table - in ergs per 1 cm^2 in steradians per second for the interval $\Delta\lambda = 1 \text{ cm}$. The brightness is of the order of 600 quanta per 1 cm^2 for a solid angle of 1 square degree per second in the interval $\Delta\lambda = 1 \text{ \AA}$. The table contains the region $\lambda 4450 - 6400 \text{ \AA}$. Because of the brightness peak at $\lambda = 4762$ the data for 4650-4850 $\text{\AA}$ are only valid for a

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New Luminofors of Constant Brightness for the
Spectrophotometry of Weak Celestial Objects. The
Energy Distribution in the Spectrum of Luminofors

SCV/33-36-3-21/29

use of spectrographs with a small dispersion. The authors thank
Professor V.L.Levshin, L.A.Pakhomycheva, Academician V.G.
Fesenkov, M.G.Karimov, Z.V.Karyagina, Ye.N.Kotova, and P.N.
Boyko. The authors mention P.F.Parenago, and T.P.Toropova.
There is 1 table, and 15 references, 9 of which are Soviet,
2 German, 1 English, and 3 American.

ASSOCIATION: Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga
(State Astronomical Institute imeni P.K.Shternberg)

SUBMITTED: January 10, 1958 (initially)
March 13, 1959 (after revision)

Card 2/2

22402

S/035/61/000/005/039/042
A001/A101

3,1800

AUTHORS: Pariyskiy, N.N., Dobrokhotoy, Yu.S., Pertsev, B.P., Kramer, M.V.,
Belikov, B.D., Barsenkov, S.N.

TITLE: Observations of tidal gravity variations at Krasnaya Pakhra

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 5, 1961, 33, abstract 5G215 (V sb. "Gravimetr. issledovaniya", no. 1, Moscow, AN SSSR, 1960, 21 - 26, Engl. summary)

TEXT: Observations were conducted in a special basement near Moscow in 4 km from Krasnaya Pakhra. Six monthly series of observations with four GS-11 gravimeters were made at various times from December 1957 to February 1959. The gravimeters were calibrated in the vertical gravimetric polygon at the MGU building. The harmonic analysis of tidal variations was performed on an electronic computer. The following mean values of quantities being determined $\delta = 1-3/2k + n$ and phase shifts $\Delta\varphi$ were obtained:

for diurnal waves	$\delta = 1.153 \pm 0.016; \Delta\varphi = 1^{\circ}.5 \pm 0^{\circ}.7$
for semidiurnal waves	$\delta = 1.180 \pm 0.018; \Delta\varphi = 4^{\circ}.1 \pm 1^{\circ}.0$

[Abstracter's note: Complete translation]

B. Pertsev

Card 1/1

S/035/61/000/004/006/008
A001/A101

AUTHORS: Pariyskiy, N.N., Pertsev, B.P., Gridnev, D.G., Kramer, M.V., Barsenkov, S.N.,

TITLE: Gravity tidal variations at Alma-Ata

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 4, 1961, 36, abstract 4G229 (V sb. "Gravimetr. issledovaniya", no. 1, Moscow, AN SSSR, 1960, 27 - 33, Engl. summary)

TEXT: Observations of gravity tidal variations were conducted at the Astrophysical Institute, 6 km from Alma-Ata. Two GS-11 gravimeters were used in observations which continued from October 1958 to May 1959. Harmonic analysis of the first five monthly series of observations yielded the following values of the quantities sought for $\delta = 1-3/2k+h$ and phase shifts $\Delta\varphi$: from diurnal waves $-\delta = 1.131 \pm 0.006$, $\Delta\varphi = 0.96 \pm 0.04$; from semidiurnal waves $-\delta = 1.160 \pm 0.008$, $\Delta\varphi = +4.91 \pm 0.93$. ✓

B. Pertsev

[Abstracter's note: Complete translation]

Card 1/1

S/035/61/005/704/004/008
A101/A101

AUTHOR: Pariyskiy, N.N.

TITLE: Correction for vertical accelerations in observations of gravity tidal variations

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 4, 1961, 35, abstract 4G227 (V sb. "Gravimetr. issledovaniya", no. 1, Moscow, AN SSSR, 1960, 39 - 40, Engl. summary)

TEXT: In vertical movements of the earth surface caused by crustal tides, arise forces of inertia which slightly distort the observed tidal variations of gravity. The author calculates the effect of these forces and gives the values of corrections to amplitudes of main tidal waves.

B. P.

[Abstracter's note: Complete translation]

Card 1/1

81428
S/030/60/000/06/05/043
B004/B008

3.9000
AUTHOR:

Pariyskiy, N. N., Doctor of Physical and Mathematical Sciences

TITLE:

The Tidal Motions of the Earth's Surface and the Inner Structure of the Earth

PERIODICAL: Vestnik Akademii nauk SSSR, 1960, No. 6, pp. 61-69

TEXT: The author deals with the rhythmical elastic deformation of the earth's crust caused by the attraction of sun and moon. He subdivides the tidal waves into long-periodical, daily, and half-daily ones, and reports on experiments to compute their amplitudes from a) the height of sea tides, b) the change in gravity, c) the change of inclination of the earth's surface, for which method a sensitive inclinometer was developed at the Institut fiziki Zemli im. O. Yu. Shmidta (Institute of Geophysics imeni O. Yu. Shmidt) by A. Ye. Ostrovskiy, d) by means of extensometer, and e) by exactly determining the Chandler periods of the nutation of the earth's poles. The papers by M. S. Molodenskiy and Ye. F. Fedorov are mentioned in connection with this method. The intensification of these

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The Tidal Motions of the Earth's Surface
and the Inner Structure of the Earth

81428

S/030/60/000/06/05/043
B004/B008

studies during the International Geophysical Year and the activity of the International Geodetic and Geophysical Union are pointed out, Yu. D. Bulanzbe (USSR) being named as its Deputy Chairman. The change in gravity has been studied in the USSR on suggestion by A. A. Mikhaylov since 1935, and especially at the Institute of Geophysics since 1950. M. S. Molodenskiy solved the deformation of 16 models of the earth by means of numerical integration of 3 equations of second degree in 1953 (Table 1). The method by B. P. Pertsev for the determination of the amplitudes M_2 , S_2 , N_2 , and O_1 , K_1 , as well as computations by A. Ya. Orlov (of older date) are mentioned. Measurements of gravitation were carried out at the Institute of Geophysics by Z. N. Aksen'yeva. A figure shows the change in gravity measured by D. G. Gridnev at Tashkent in November-December 1959, and Table 2 mentions data of the phase lag $\Delta\varphi$, which were measured in various places including Lanchow under the direction of Yu. S. Dobrokhotoy by collaborators of the Chinese Academy of Sciences. The following places in the USSR where this problem is being studied are mentioned: Pulkovo, Krasnaya Pakhra (near Moscow), Alma Ata, and Tashkent. The computation of the indirect influence of sea tides on

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The Tidal Motions of the Earth's Surface
and the Inner Structure of the Earth

81128
S/030/60/000/06/05/043
B004/B008

the deformation of the earth's crust by means of electronic computers
is planned at the Institute of Geophysics. The retardation of the earth's
rotation through the phase lag is being discussed. There are 1 figure
and 2 tables.

Card 3/3

X

PARIYSKIY, N.N.

~~E~~ffect of earth tides on the secular retardation of the earth's rotation. Astron.zhur. 37 no.3:543-549 My-Je '60. (MIRA 13:6)

1. Institut fiziki Zemli Akademii nauk SSSR.
(Tides) (Earth--Rotation)

KARYAGINA, Z.V.; PARIYSKIY, N.N.

Effect of the polarization of a spectrograph on the observed
energy distribution and spectrum intensity of the zodiacal light.
Izv.Astrofiz.inst.AN Kazakh. SSSR 11:70-77 '61. (MIRA 14:3)
(Zodiacal light)

89326

S/033/61/038/001/009/019
E032/E514

3,1800 (1041, 1062, 1178)

AUTHORS:

Gindilis, L.M. and Pariyskiy, N.N.

TITLE:

On the Intensity of the Principal Emission Lines of
the Night Sky in the Region of the Gegenschein

PERIODICAL:

Astronomicheskii zhurnal, 1961, Vol.38, No.1,
pp.99-106

TEXT:

The intensities of the lines $\lambda 5557$, 5893 and $6300 \text{ \AA}$ were investigated. Spectrograms of the gegenschein were obtained with a fast nebula spectrograph having a focal ratio $f/0.7$ and a dispersion of $2000 \text{ \AA/mm}$ at $5500 \text{ \AA}$. The observations were carried out in 1956 at the Alma-Ata Observatory and in October, 1957 at the High Altitude Station of GAISH near Alma-Ata ($H = 3060 \text{ m}$). The spectra were obtained on DH and P Φ -3 (RF-3) plates using an exposure of one hour and a slit width of 3 mm (1956) and OAF plates using an exposure of 30 min and a slit width of 4 mm (1957). The calibration was carried out using β -particle excited phosphors of the type described by Kharitonov on p.164 of the present issue. The relative intensity of the above lines in the region of the gegenschein and in the night sky were measured at the same zenith distance. Detailed numerical results are reproduced in a table

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89326

S/033/61/038/001/009/019
EO32/E514

On the Intensity of the Principal Emission Lines of the Night Sky
in the Region of the Gegenschein

The mean relative intensities of the three lines were found to be $0.99 \pm 0.01_5$, $1.02 \pm 0.03_6$ and $1.08 \pm 0.04_0$, respectively. The observations give no indication of line intensification. Strictly speaking, this result has no connection with the concept of the gegenschein as the gaseous tail of the earth. It merely shows that these lines are not excited in the tail even if a tail does exist. A study of the principal emission lines in the region of the gegenschein does not provide information about the nature of the latter. A detailed study of the spectrum of the gegenschein in a wide spectral interval is necessary. There are 1 figure, 1 table and 17 references: 8 Soviet, 9 non-Soviet.

ASSOCIATION: Gos. astronomicheskii in-t im. P. K. Shternberga
(State Astronomical Institute imeni P.K. Shternberg)

SUBMITTED: July 11, 1960

Card 2/2

ITM16

S/169/62/000/004/018/03
D228/D302

3,5/20

AUTHORS: Pariytsky, N. N., Hu Jen-Ch'ao, Pomenko, B. D. and
Gindilis, L. M.

TITLE: Changes in the ozone layer during the annular solar
eclipse of April 19, 1958, on Hainan Island

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 4, 1962, 7, ab-
stract 4B68 (Acta geophys. sinica, 10, no. 1, 1961,
1-16)

TEXT: A Sino-Soviet group investigated the ozone content from so-
lar-eclipse observations during the annular solar eclipse of April
19, 1958, on Hainan Island. A spectrograph, which was employed to
observe simultaneously the zodiacal light and the counter-radiance,
was used in the observations. The observational procedure and the
processing of the resulting data are described. The results show
that the content of atmospheric ozone changes conspicuously during
a solar eclipse. It is noted that the concentration rises up to
the moment half an hour after the middle of the eclipse; the lay-

Card 1/2

3/169/62/000/004/018/103
0228/0302

Changes in the ozone ...

yer's thickness then subsequently decreases. [Abstracter's note:
Complete translation.]

Card 2/2

S/886/62/000/000/002/003
D207/D308

AUTHORS:

Pariyskiy, N.N., Hu Jen-ch'ao, Fomenko, B.D. and
Gindilis, L.M.

TITLE:

Measurements of the ozone layer during the annular
solar eclipse on April 19, 1958, on Hainan Island

SOURCE:

Sbornik trudov MGU po Mezhdunarodnomu geofizicheskom
godu; astronomiya. (Moscow) Izd-vo Mosk. univ., 1962,
31-53

TEXT:

The observations during the eclipse were carried out
by a joint Soviet-Chinese expedition led on behalf of the USSR Acad-
emy of Sciences by A.P. Molchanov, and on behalf of the Chinese
Academy of Sciences by Ch'eng Fang-yung. The expedition was organ-
ized by the Chairman of the Astronomicheskii soviet AN SSSR (Astron-
omical Council, AS USSR) A.A. Mikhaylov and his deputy B.V. Kukarkin.
On the Chinese side there was a special committee led by the Vice-
President of the Chinese Academy of Sciences Wu Yu-hsiung. The opti-
cal group included N.N. Pariyskiy of the Institut fiziki Zemli AN

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S/886/62/000/000/002/003
D207/D308

Measurements of the ozone ...

SSSR (Institute of Physics of the Earth, AS USSR) and the Gosudarstvennyy astronomicheskii institut im. P.K. Shternberga (State Astronomical Institute imeni P.K. Shternberg), L.M. Gindilis of the State Astronomical Institute imeni P.K. Shternberg, Hu Jen-ch'ao and Yu Hai-jen, both of the Peking Geophysical Institute of the Academy of Sciences of the Chinese People's Republic. The optical group was led by N.N. Pariyskiy. The results were analyzed by B.D. Fomenko of the Stalingradskiy pedagogicheskii institut im. A.S. Serafimovich (Stalingrad Pedagogical Institute imeni A.S. Serafimovich) under the direction of N.N. Pariyskiy. The time service was provided by the Chinese scientists Ch'eng Fang-yung and Wang Shou-kuan. The observations were carried out at the south extremity of Hainan Island at a latitude of about $+18^{\circ}.3$. The variations in the ozone layer thickness during the eclipse were observed together with the gegenschein using a very-high-speed nebular spectrograph MKC (NKS) with quartz-lithium fluoride optical parts; the spectrograph is described in detail in the article of N.N. Pariyskiy and L.M. Gindilis. Since the NKS spectrograph was designed primarily for observations of the gegenschein and zodiacal light, a special photometric

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Measurements of the ozone ...

S/886/62/000/000/002/003
D207/D308

attachment was used to adapt it for ozone line measurements. The ozone spectrum (3000 - 3400 Å) showed a general tendency for the ozone-layer thickness to increase up to 1 hour after the climax of the eclipse. A detailed analysis will be published in a separate communication. There are 4 figures and 7 tables.

SUBMITTED:

January 2, 1960

Card 3/3

PARIYSKIY, N.N., doktor fiz.-matem.nauk

Studying earth tides. Vest. AN SSSR 32 no.1:100-102 Ja '62.
(MIRA 15:1)

(Earth--Internal structure)

KRAMER, M.V.; PARIYSKIY, N.N., doktor fiz.-mat. nauk, otv. red.

[Tables of tidal changes caused by the sun and the moon on a solid earth in 1962. (for a point with coordinates 50° N. lat., 0° long)] Tablitsy prilivnykh izmenenii sily tiazhesti ot luny i solntsa dlia absolutno tverdoi Zemli na 1962.g. (dlia punkta s koordinatami $\varphi=50^{\circ}$ s.sh; $\lambda=0^{\circ}$)
Moskva, Akad.nauk SSSR, 1962. 49 p. (MIRA 16:3)
(Tides--Tables)

S/886/62/000/000/001/003
D207/D308

AUTHORS: Pariyskiy, N.N. and Gindilis, L.M.
TITLE: Investigation of the nature of gegenschein
SOURCE: Sbornik trudov MGU po Mezhdunarodnomu geofizicheskom godu; astronomiya. (Moscow) Izd-vo Mosk. univ. 1962, 3-30
TEXT: The discovery and the nature of the gegenschein (counterglow) are reviewed at length. A description is given of two very-high-speed low-dispersion nebular spectrographs: HCC (NSS), which is a glass prism instrument for the visible region and HKC (NKS), which is a quartz prism instrument for the violet and ultraviolet regions. These spectrographs were designed by V.I. Bedel and M.V. Lobachev and constructed under the direction of P.V. Dobyshin in 1954. The spectrographs each had a tube which widened in front where there was a large precision-made nebular slit of 300 mm length, a prism and a camera with a simple collimator lens focused on the slit. They were used, along with a CN 63 (SP63) spectrograph.

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Investigation of the nature ...

S/886/62/000/000/001/003
D207/D308

for the 3800 - 9500 Å range, to observe the gegenschein near Alma-Ata (1956-57) and Dzhaylyau (1957-59) in the USSR and on Hainan Island (1958) in China. The most interesting results have been published already. Here the authors briefly mention that the gegenschein was exceptionally intense during strong aurora (the night of 29-30th September, 1957) and that the annual variation of the ecliptical latitude of the gegenschein, observed by many workers, is due to superposition of two effects: 1) a zodiacal light band, in which the matter is concentrated in a fixed Laplace plane at a distance of 2.5 astronomical units from the Sun; 2) light of different origin, the source of which is concentrated in the ecliptic (this may be partly due to the gas 'tail' of the earth). Part of the work was carried out together with the Institut fiziki Zemli AN SSSR (Institute of Physics of the Earth, AS USSR), the Astrofizicheskiy institut Akademii nauk Kazakhskoy SSR (Astrophysical Institute, AS Kazakh SSR), from which Z.V. Karyagina took an active part in the work, and the joint Soviet-Chinese expedition for the observation of the annular solar eclipse on April 19, 1958, in which the staff members of the Peking Geophysical Institute of the Academy of

Card 2/3

Investigation of the nature ...

S/886/62/000/000/001/003
D207/D308

Sciences of the Chinese People's Republic, Hu Jên-ch'ao and Yu Hai-jên, participated. There are 10 figures and 10 tables.

SUBMITTED: January 2, 1960

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L 8976-65 ENT(1)/ENG(v) Po-4/Pe-5/Pq-4/Pg-4 ESD(t)/AFWL/SSD/AFETR
MLK/GW

ACCESSION NR: AT4045939

S/0000/03/000/000/0012/0017

AUTHOR: Pariyakiy, N. N. B

TITLE: Manifestation of the influence of the earth's liquid core on diurnal earth tides and free nutation

SOURCE: AN SSSR. Astronomicheskii sovet. Komissiya po izucheniyu vrashcheniya Zemli. Plenum. Ist. Kiev, 1962. Vrashcheniya Zemli (Rotation of the Earth); materialy* plenuma. Kiev, Izd-vo AN USSR, 1963, 12-17

TOPIC TAGS: geophysics, earth tide, earth core, free nutation, diurnal tidal wave, solar tide, earth model

ABSTRACT: In 1961, a study was published by M. S. Molodenskiy (Teoriya nutatsii i sutochnykh zemnykh prilivov, Izd-vo AN SSSR, 1961) in which he presented a new theory of nutation and diurnal earth tides. In that monograph, Molodenskiy computed two models of the earth's structure with a more refined structure of the core than in the Jeffreys-Vicente model. The density distribution in the two Molodenskiy models is shown in Fig. 1 of the Enclosure. This same author was the first to obtain precise values of the period T_0 of diurnal nutation of the earth's mantle for modern models of an earth with a liquid core. This, and a number of important subsequent studies by

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L 8974-65

ACCESSION NR: AT4045939

other authors, cited in the text, provide the necessary background for the study of tidal deformations of the earth; such measurements are currently made by gravity determinations. The characteristic value for this purpose is the ratio of the amplitudes of the observed tidal change of gravity Δg to its theoretical change for an absolutely solid earth Δg_0 . This ratio, denoted δ , is a function of the Love constants h and k , characterizing the elastic properties and internal structure of the earth

$$\delta = \frac{\Delta g}{\Delta g_0} = 1 + h - \frac{3}{2} k. \quad (1)$$

For an elastic earth with a core bound to the mantle and taking part in its nutational movements, the values of δ obtained from individual tidal waves, both diurnal and semidiurnal, should be identical or almost identical if inertial terms are taken into account in the static theory. In dynamic theory, with the influence of a liquid core taken into account, this ratio δ is different for different diurnal waves. Fig. 2 of the Enclosure shows the δ values computed by Molodenskiy for his model II as a function of the frequency σ of tidal waves. The figure shows the relative deviation of the frequency of the wave from the frequency ω of the earth's rotation. Here, ω is

Cord 2/6

L 8976-65

ACCESSION NR: AT4045939

considered positive and σ negative. However, in the expansion of the tidal potential, there are no diurnal waves with considerable amplitudes for which the frequency is very close to σ_0 . Among the principal diurnal waves only the lunar-solar tidal wave K_1 has a frequency close to σ_0 . The period of this wave is three minutes longer than the resonance period T_0 . The solar diurnal wave P_1 is next closest; it has a period four minutes longer than the day, or ten minutes longer than T_0 . The solar-lunar tidal wave O_1 is almost two hours longer than T_0 . The influence of the earth's liquid core on the amplitude of diurnal tidal waves can be checked experimentally. For his second model of the internal structure of the earth, Molodenskiy obtained the following theoretical values: O_1 , with a period $T = 25^h 49^m$; $\delta(O_1) = 1.164$; K_1 , with a period $t = 23^h 56^m$; $\delta(K_1) = 1.142$. The difference $\delta(O_1) - \delta(K_1) = 0.022$ attains values which can be measured. This difference is also dependent on the flattening of the core and its moment of inertia. Its precise determination would make it possible to estimate the moment of inertia of the earth's core and therefore to determine more precisely the distribution of masses within the earth. The author reports on a 6-months series of observations made at Tashkent with Askaniya gravimeters. The following value was obtained

$$\delta(O_1) - \delta(K_1) = 0.021 \pm 0.005.$$

(2)

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ACCESSION NR: AT4045939

Data from ten stations from the records at the WDC give

$$\delta(O_1) - \delta(K_1) = +0.018$$

(3)

These observations appear to confirm Molodenskiy's theoretical results. Orig. art. has: 6 formulas and 2 figures.

ASSOCIATION: Komissiya po izucheniyu vrashcheniya Zemli, Astronomicheskiy sovet AN SSSR. (Commission on the Study of the Earth's Rotation, Astronomical Council, AN SSSR)

SUBMITTED: 13Dec63

ENCL: 02

SUB CODE: E3

NO REF SOV: 001

OTHER: 001

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L 8976-65
ACCESSION NR: AT4045939

ENCLOSURE: 01

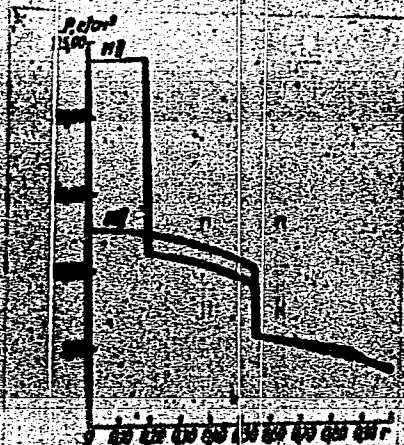


Fig. 1. Density distribution within the earth for Molodenskiy's models M I and M II. A. ρ , g/cm³.

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1. 8976-65

ACQUISITION NO. AT4445000

ENCLOSURE 01

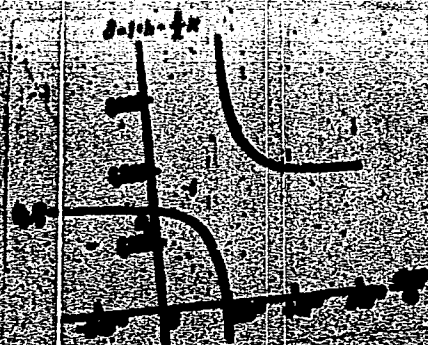


Fig. 1. Changes in the parameter $\delta = 1/2 + \frac{1}{2} \epsilon$ as a function of the frequency ϵ of tidal waves and the frequency ϵ of the earth's rotation.

Card 1/1

S/049/63/000/002/001/008
D207/D307

AUTHOR: Pariyskiy, N. N.
TITLE: Earth tides and internal structure of the earth
PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya
geofizicheskaya, no. 2, 1963, 193-215

TEXT: The article reviews Western and Soviet literature (up to 1961) on the methods of investigating the tidal deformations of the solid earth in connection with the study of the earth's structure and determination of the Love numbers h , k , l . Nine methods for determining the Love numbers are described, and the results obtained are tabulated with an indication of their accuracy. Special attention is paid to the most accurate method: measurement of the tidal changes in the force of gravity. A formula is derived for the relative change of gravity due to earth tides (known as the δ factor) when these tides can be represented by spherical functions of the second or third order. It is shown

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S/049/63/000/002/001/008
D207/D307

Earth tides and...

that inertial terms must be allowed for. The main results are given of the work of M. S. Molodenskiy on the theory of static tides and their connection with the internal structure of the earth, and the new dynamic theory of daily tides and the nutation with an allowance for the liquid state of the earth's core. The inclinometric and gravimetric observations, carried out recently by the Institute of Physics of the Earth, are reported. They confirm Molodenskiy's theory: the difference between the values of the δ -factor for O_1 and K_1 waves in Tashkent is $+ 0.027 \pm 0.003$. The preliminary results of the determination of the phase lag in earth tides are reported: they are based on the observations of the Institute of Physics of the Earth, carried out in Soviet Central Asia, and on world data, indicating a phase lag of about 20 min. The real meaning of the phase lag and its geophysical aspects are discussed. The main problems in future investigations of earth tides for the purpose of determining the internal structure of the earth are outlined. There are 49 references, 6 figures and 1 table.

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Earth tides and...

S/049/63/000/002/001/008
D207/D307

ASSOCIATION: Institut fiziki Zemli AN SSSR (Institute of
Physics of the Earth, AS USSR)

SUBMITTED: June 4, 1962

Card 3/3

1 10491-63

ENT(1)/FCG(w)/BDS/RS(+)--AFFIC/ESD-3--Pa-4--GW

ACCESSION NR: AP3001246

8/0033/63/040/003/0556/0560 61

AUTHOR: Periyakiy, N. N.

TITLE: Detection of the diurnal nutation of the Earth 12

SOURCE: Astronomicheskiy zhurnal, v. 40, no. 3, 1963, 556-560

TOPIC TAGS: solar-lunar-originated nutation, models of terrestrial structure

ABSTRACT: N. S. Molodenskiy reports on the computation of the nutation of the terrestrial crust from two models of the terrestrial structure, one based on a liquid core whose density changes according to the law of adiabatic compression and the other, on a liquid core containing a small rigid part. Three waves were detected: 1) a major wave K sub 1 of the lunosolar declination tide, with a period of 24 stellar hr; 2) a major wave P sub 1 of solar origin, with a period 4 min longer than the mean 24 hr and an amplitude three times smaller than that of the K sub 1 wave; and 3) a large diurnal tidal wave O sub 1 of lunar origin with a period of 25 hr 49 min. Molodenskiy computed the difference between O sub 1 and K sub 1 for both his models; it was positive but small. Observations were

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made in Tashkent and Frunze with two identical gravimeters and processed by the Pertsev and Lecolazet computation methods (see Table 1 of Enclosure). Molodenskiy obtained differences of ± 0.023 for the first model and ± 0.022 for the second. The average difference computed from observational data was ± 0.026 plus or minus 0.002. Orig. art. has: 1 table.

ASSOCIATION: Institut fiziki Zemli Akademii nauk SSSR (Institute of Physics of the Earth, Academy of Sciences SSSR)

SUBMITTED: 20Dec62	DATE ACQ: 01Jul63	ENCL: 01
SUB CODE: 00	NO REF SOV: 006	OTHER: 006

Card 2/2

PARIYSKIY, N.N., doktor fiz.-matem.nauk

Discovery of a new nutation of the earth. Vest. AN SSSR 33
no.3:77-81 Mr '63. (MIRA 16:3)
(Nutation)

ACCESSION NR: AR4020762

S/0169/64/000/001/G027/G027

SOURCE: RZh. Geofizika, Abs. 1G185

AUTHOR: Pariyskiy, N. N.

TITLE: Study of tidal variations of the force of gravity in Central Asia

CITED SOURCE: Sb. Izuch. zemn. prilivov. No. 3. M., AN SSSR, 1963, 5-8

TOPIC TAGS: Tidal gravity variation, earth tide, gravity variation, nutation

TRANSLATION: A brief exposition of a report at the 4th International Symposium on Earth Tides in Ycla (Belgium, June 5-10, 1961), concerning measurements of tidal variations of the force of gravity in Central Asia (Alma-Ata, Lanchow and Tashkent), carried out by the Institute of Earth Physics of the Academy of Sciences of the USSR. The analysis was made by using a method due to B. P. Pertsev.

From the amplitudes of the waves M_2 , S_2 , and O_1 with periods far removed from the resonance period with daily nutation, the average value $\delta = 1.138 \pm$

Cord 1/2

ACCESSION NR: AR4020762

0.002 (considerably less than in Europe) was obtained from these three points with good mutual agreement. In Tashkent, the results obtained from each of two gravimeters differed from the mean result by less than 0.4% for the waves O_1 , K_1 , M_2 and S_2 . A resonance effect with daily nutation was observed, which was manifested in a decrease of the value of δ determined from the wave K_1 with a period equal to the sidereal day in accordance with the theory of M. S. Molodenskiy. In Tashkent, the value $\delta(O_2) - \delta(K_1) = -0.028 \pm 0.005$ was obtained.

DATE ACQ: 03Mar64

SUB CODE: AS

ENCL: 00

Card 2/2

ACCESSION NR: AR 4020763

S/0169/84/000/001/G027/G027

SOURCE: RZh. Geofizika, Abs, 1G186

AUTHORS: Pariyskiy, N. N.; Gridnev, D. G.; Barsenkov, S. N.; Sary*cheva, Yu. K.; Kramer, M. V.

TITLE: Tidal variations of the force of gravity in Tashkent

CITED SOURCE: Sb. Izuch. zemn. prilivov. No. 3. M., AN SSSR, 1963, 9-39

TOPIC TAGS: Tidal gravity variation, gravimeter

TRANSLATION: Results are given of an analysis of observations of tidal variations of gravity in Tashkent carried out at the Astronomical Observatory with two Askaniy gravimeters in the course of 7 months. Each gravimeter was used to carry out 16 monthly analyses by two methods: that of Pertsev and that of Lekalaze. The agreement between the results obtained by the two methods was very good. On the average, the Pertsev method gave $\delta = 1.148 \pm 0.001_2$, and the Lekalaze method gave $\delta = 1.147 \pm 0.001_3$ for the waves

Cord 1/2 .

ACCESSION NR: AR4020763

M_2 , S_2 , and O_1 .

The value of δ obtained in this work and greater by 1% than the value published earlier (see preceding report) is explained by the larger volume of processed data and principally by the fact that the effect of the instrument drift on the determination of the calibration factors was taken into account, using the method due to Yu. S. Dobrokhotoy.

DATE ACQ: 03Mar64

SUB CODE: AS

ENCL: 00

Cord 2/2

FARIYSKIY, N.N., doktor fiz.-matem. nauk, otv. red.

[Study of earth tides. Izuchenie zemnykh prilivov. Moscow, Nauka, 1964. 113 p. (NIA 17:8)]

1. Akademiya nauk SSSR. Institut fiziki Zemli.

PARIYSKIY, N.N.

Precise measurements of gravity. Priroda 53 no.1:112-113 '64.
(MIRA 17:2)

1. Institut fiziki Zemli im. O.Yu.Shmidta AN SSSR, Moskva.

PARIYSKIY, N.N.

' Study of the earth's tides from the beginning of the IGY. Geofiz.
, biul. no.14:179-188 '64. (MIRA 18:1)

PARIYSKIY, N.N., doktor fiz.-matem. nauk; DOBROKHOTOV, Yu.S., kand. fiz.-
~~matem.~~ nauk

Observations of Soviet geophysicists in Mali. Vest. AN SSSR
35 no.9:76-78 '65. (MIRA 18:9)

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PALATNIK, L.S.; BOYKO, B.T.; FUKS, M.Ya.; PARIYSKIY, V.B.

Electronographic investigation of the substructure of thin films
of aluminum, silver, and gold condensed in vacuum. Fiz.met.i
metalloved. 13 no.1:71-76 Ja '62. (MIRA 15:3)

1. Khar'kovskiy politekhnicheskii institut imeni V.I.Lenina.
(Metallic films) (Electron diffraction examination)

PALATNIK, L.S.; FUKS, M. Ya.; BOYKO, B.T.; PARIYSKIY, V.B.

Electronographic investigation of the substructure of fine condensates of aluminum by the microbeam method. Fiz. met. i metalloved. 11 no.6:864-869 Je '61. (MIRA 14:6)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M. Gor'kogo i Khar'kovskiy politekhnicheskii institut imeni V. I. Lenina.
(Aluminum—Metallography)
(Electron diffraction examination)

PARIYSKIY, V.B.; LANDAU, A.I.; STARTSEV, V.I.

Intermittent movement of dislocations in LiF single crystals.
Fiz.tver.tela 5 no.5:1377-1385 My '63. (MIRA 16:6)

1. Fiziko-tekhnicheskiy institut nizkikh temperatur AN
UkrSSR, Khar'kov.

(Lithium fluoride crystals)

PARIYSKIY, V.B.; LANDAU, A.I.; BORZHKOVSKAYA, V.M.

Spontaneous jumps of dislocations in LiF single crystals. Fiz.
tver tela 5 no.9:2570-2575 S '63. (MIRA 16:10)

1. Fiziko-tekhnicheskii institut nizkikh temperatur AN UkrSSR,
Khar'kov.

L 58993-65

EWI(1)/EWI(m)/T/EWI(t)/EEC(b)-2/EWP(b)/EWA(c) P1.4 LJR(c)

JD/GG

UR/0181/65/007/007/2136/2146

ACCESSION NR: AP5017311

AUTHOR: Borzhkovskaya, V. M.; Landau, A. I.; Pariyskiy, V. B.

TITLE: The investigation of slip lines in single crystals of LiF by means of graphs showing the statistical distributions of distances between etching depressions

SOURCE: Fizika tverdogo tela, v. 7, no. 7, 1965, 2136-2146

TOPIC TAGS: crystallography, slip band, plastic deformation

ABSTRACT: The statistical method was used to investigate the fine slip lines in single crystals of LiF during the early stages of plastic deformation. The method consists of measuring the distance between adjacent etching depressions along the slip line and the construction of graphs for the statistical distributions dN/dl where N is the number of measured distances with length less than or equal to l . The basic result of the work is the isolation of a series of maxima appearing on each graph and occupying approximately the same positions. These positions are independent of external loading and are the same for all slip lines formed by the out-lets of edge and spiral dislocations. This points to the existence of certain definite most probable distances between etching depressions governed by the internal

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ACCESSION NR: AP5017311

structure laws of the investigated slip lines. The work considers the possible structure of the fine slip lines which could lead to the appearance of such maxima. A hypothesis is advanced that the existence of definite most probable distances between etching depressions in the slip lines is due to the interaction of dislocations contained in the bands with local detents. "In conclusion the authors express their gratitude to V. I. Startsev for constant interest in the work, to A. V. Stepanov, V. L. Indenbom, A. N. Orlov, A. M. Ratner and E. M. Nadgornyy for discussing the results." Orig. art. has: 3 figures, 1 table, 3 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR, Kharkov (Physicotechnical Institute of Low Temperatures, AN UkrSSR)

SUBMITTED: 11 May 64

ENCL: 00

SUB CODE: SS

NO REF SOV: 009

OTHER: 010

Corr 2/2